

# **System, Method and Apparatus for Integrated Access to Electronic Works**

*Inventors:*     **Mike Oliphant**  
                      **Dan Kaplan**  
                      **John Knott**

## **RELATED APPLICATIONS**

This application claims the benefit of U.S. Provisional Application No. 60/175,159, entitled SYSTEM AND METHOD FOR ENABLING GLOBAL ACCESS AND INSTANTANEOUS LISTENING TO DIGITAL AUDIO, filed on January 7, 2000, U.S. Nonprovisional Application No. 09/615,591, entitled SYSTEM AND METHOD FOR PROVIDING ACCESS TO ELECTRONIC WORKS, filed on July 13, 2000, U.S. Nonprovisional Application No. 09/615,590, entitled DISTRIBUTION SYSTEM FOR ELECTRONIC WORKS, filed on July 13, 2000, and U.S. Nonprovisional Application No. 09/722,407, entitled A SUBSCRIPTION AND ACCOUNTING SYSTEM, each of which is herein incorporated by reference.

## **Background of the Invention**

### ***Field of the Invention***

The present invention relates generally to providing improved access to varying forms of content stored in varying locations. More specifically, the present invention relates to a system, method and apparatus for providing integrated access to electronic works stored by multiple

content providers. In a preferred embodiment, the integrated access is provided through an interface supported by a host that is further a content provider of electronic works.

### ***Related Art***

As networks such as the Internet have become more widely accessible, one industry that has enjoyed increasing popularity is the industry related to providing online access to multimedia content. Such content includes audio works in such formats as wave (WAV), Moving Picture Experts Group [MPEG]-1, Layer-3 (MP3), and Real Audio (RM); video or audio-visual works in formats including MPEG, Audio Video Interleave (AVI), etc.; and combinations thereof.

As a result of this increasing popularity, individuals and groups have introduced systems supporting web sites, on such networks as the Internet, for providing to a user online access to the various types of electronic multimedia works. Often, a user will have accounts with one or more such web sites from which these multimedia works may be accessed. Furthermore, a typical user will also have electronic content stored at one or more personal locations, such as in memory in a personal computer at home and/or at the office. Thus, a problem arises in that it is often difficult for a user to retrieve all content that the user is entitled to access from all locations. For example, when at home, the user may be able to access electronic works from local memory, but must login online to access electronic works accessible only from an online account. Likewise, when a user is logged in to an online account from the office computer, the user cannot access electronic content stored at home.

What is needed is a system for integrating access to electronic works stored at a plurality of locations such that they are accessible from any networked location. Furthermore, such

integrated access would preferably be provided through an online account, such that all the options thereby available, such as playlists, etc., would continue to be at the disposal of the user.

## **Summary of the Invention**

The present invention provides a system, method and apparatus for integrated access to electronic works stored at a plurality of locations such that they are accessible from any networked location. In a preferred embodiment, a user has access to content from multiple sources, such as a remote content source or location and a host. In this embodiment, the user inputs information into the remote content source, such as the user's identification and/or the general location of electronic works at the remote source. The information may be input via a user terminal at the remote content location. With this information, the user terminal searches the remote content source for the electronic works. For each electronic work the user terminal finds, the user terminal records a specific location of the work. The remote content source may also store hyperlinks or bookmarks to electronic works at other network locations or other hosts. Thus, in one embodiment, the user terminal further searches the remote content source for these hyperlinks or bookmarks and stores them as electronic work locations.

The user terminal may also extract additional information from the stored content, such as the file name, meta-data, or other potentially useful information. The meta-data preferably includes the name of the work, the type of the work, the author, and other helpful information. If this information is not stored within the electronic work, the user terminal may create such meta-data from the name of the file, the location of the file, the name of the folder containing the file or other contextual information.

Next, the user terminal assigns identifiers to each of the stored or identified works. In a preferred embodiment, the identifiers are assigned sequentially. Alternatively, the identifiers may also be assigned randomly, based on the file name, based on the meta-data, or many other ways.

Once a work is assigned an identifier, the user terminal sends a message to the host. The message may be sent automatically or at the user's request. The message preferably includes user identification information required for accessing the user's account with the host, an identifier for at least one electronic work, and a network address for the remote content source. The user identification may be a username and password, for example. The network address is preferably an Internet Protocol address.

When the host receives the message, the host links this information to the user's account based on the user identification and stores the information contained within the message in memory. The host may link the information with a variety of database structures and tables. The host may link multiple remote content locations, such as the user's home and office, to a given account.

Since the network address of a remote content location may change periodically, the user terminal may also refresh or update the address or location of the stored or identified works. The updates may occur periodically, every time a user accesses their account with the host, or any other reasonable number of times. The need for updates depends on the stability of the network address.

In addition to remote content sources, the user's account with the host may also contain content or electronic works from a variety of other sources. For example, the user's account may provide access to works stored at or available through the host itself. The works available from

the host may be authorized through a variety of sources. In a preferred embodiment, the user may receive authorization to access the works at the host by special promotions, confirmation numbers obtained from retailers, the host receiving an authorization message from a retailer, or the user demonstrating ownership of the work in a variety of other ways. Each work associated with the user's account has a unique identifier.

Once the links to content stored at the remote content location or locations are integrated with content from other sources, a user may access all of the linked content from anywhere the user has access to the host.

To access this content, a user logs on to the user's account with the host and selects the works that he or she wants to access. The user may select the works individually or the user may create a playlist including content from any of the content sources linked to the account. For example, a playlist may include works stored at remote content locations, works stored at the host, or works stored at any other network locations (ex., other web sites or other personal archives).

When the user selects a work, the user terminal sends a request to the host for access to the work. Based on this request, the host creates another identifier, such as a uniform resource locator, to locate the work. If the work is stored at a remote content location, the identifier is created in part based on the address of the remote content location and the work identifier. If the work is stored at the host, the identifier is created based on the file name or location.

Once the URL or identifier is generated, if the requested electronic work is stored at a remote content location, the host sends this identifier back to the user location. The identifier may be a hyperlink to the network location of the requested work, it may be the location of the requested work at the remote content location, or it may be a combination of both. Alternatively,

it may only be a sequentially assigned identifier sent with a message including additional information, such as the location of the content location and/or the location of the work at the content location. Once the user location receives the message from the host, the user location contacts the remote content source using the information within the message or identifier, and asks it to deliver the requested work.

In an alternative embodiment, the host may forward this user's requests to the remote location itself. The request is typically forwarded based on the address of the remote content location stored in memory. The request may include the work identifier and the address where the user wants to receive the work.

To receive this message with the identifier from the host, the user terminal listens on a network port for such incoming requests using a specified protocol, such as HTTP. The message from the host preferably includes the address of the remote content location with the work and the identifier of the works. In response to the message, the user terminal typically sends out a request to the remote content location. This request asks the remote content location to deliver the requested work to the user location.

In an alternative embodiment, the host may have forwarded the user's request to the remote content location and the next signal received by the user location may be the delivery of the requested work. The work may be delivered by streaming the electronic work to the specified address, downloading the requested work to the specified address, or any other method of distributing the work to the location.

In any embodiment, the requested work may be delivered directly from the content location to the user location or it may be delivered indirectly to the user location through the host.

## Brief Description of the Drawings

The present invention is described with reference to the accompanying drawings. In the drawings, like reference numbers indicated identical or functionally similar elements.

Figure 1 shows a block diagram of an embodiment of a system of the present invention;

Figure 2 shows a flow chart of a method of the present invention;

Figure 3 shows an exemplary data table generated in accordance with the present invention; and

Figure 4 shows a flow chart of a method of the present invention.

## Detailed Description of the Preferred Embodiments

Figure 1 shows an overview of a preferred embodiment of the present invention. As shown, the system **100** includes a host location **120**, some exemplary content locations **160**, and a user location **180**. Each of the host location **120**, the content locations **160** and the user location **180** is preferably enabled for communication with each of the others over a network **140**. Note that the host location **120** shown here is also a content location. The host location **120**, the content locations **160** and the user location **180** may be configured in a variety of different architectures, such as a client/server or a mainframe.

The network **140** is preferably the Internet, but may be any network, public, private or otherwise. The Internet is a network generally defined as a collection of processing systems and/or networks that are themselves globally networked together. The systems and networks of the global network are connected via any of a number of protocols, such as Transmission Control Protocol/Internet Protocol ("TCP/IP"). Internet Protocol ("IP") is the basic communications

language or protocol of the Internet. This and other related protocols provide for file transfer, remote log-in, electronic mail, and other services, including distributed processing, as well as other resources. HyperText Transfer Protocol (HTTP) is the set of rules for exchanging files (text, graphic images, sound, video and other multimedia files) on the Internet. Relative to the TCP/IP suite of protocols, HTTP is an application protocol.

HyperText Markup Language (HTML) is one convention that defines a set of symbols or codes inserted in a file intended for display on an Internet browser. The markup tells the web browser how to display a web page's words and images for the user. The hypertext conventions and related functions of the Internet are described in the appendices of U.S. Patent No. 5,715,314, the entirety of which is herein incorporated by reference.

The host location **120** preferably provides a user with access to content or electronic works over the network **140**. These electronic works may be audio files, video files, image files, audio-visual files, text files, games, or any other type of content file. In a preferred embodiment, the electronic works are accessible to the user via downloading, streaming or any other manner of retrieval from electronic memory.

In one embodiment, the host location **120** may include a user interface server **122**, a content database **124**, a verification server **126**, a content repository server **128**, a statistics server **130**, a content acquisition system **132** and a content delivery system **134**. The user interface server **122**, the content database **124**, the verification server **126**, the content repository server **128**, the statistics server **130**, the content acquisition system **132** and the content delivery system **134** may be supported by a single server or a plurality of servers, depending on a size of the host location **120**, a number of users, and other system requirements or characteristics. These servers may be connected via any local area network (LAN) technology, such as Ethernet, Fast Ethernet,



Asynchronous Transfer Mode, Fiber Distributed Data Interface, Fiber Channel Interconnect, etc.

In a preferred embodiment, the servers are connected via a LAN using 100 Base-T Ethernet technology.

The user interface server **122** preferably runs application software for a web site of the host location **120**, performs certain transactions and processes certain requests associated with the web site, such as logins and content management.

In a preferred embodiment, the user interface server **122** is a dual Intel processor running a Linux operating system and Apache web server with mod\_perl. A user interacts with the user interface server **122** when desiring to access their account or works. This interaction is done over HTTP using an HTML, Extensible Markup Language (“XML”), or a C Library. The user interface server **122** is accessible from anywhere the user has a connection to the network **140**.

The content database **124** preferably stores information related to electronic works stored at the host location **120** and processes requests from user locations **180**. In a preferred embodiment, the content database **124** is a dual Intel processor running a Linux operating system and MySQL database. The information stored therein may include meta-data, such as the titles of works, names of the artist, information about a band or performance, information about reviews of the work, UPC data, or any other information about the works. For example, if a work is a movie, the content database **124** may include a preview of the movie or information about its sound track. This information may be manually entered into the database or provided with the content.

The verification server **126** preferably verifies that a user is authorized to access a requested electronic work. The verification server **126** may perform a variety of tests or comparisons to determine whether a user is authorized to access a work. The manner of

verification may include proving ownership of a physical copy of the work, providing an appropriate confirmation, and/or receiving authorization from the retailer that sold the work to the user. Also, the host may secure ownership to the works identified in a user account based on information from the user terminal. The verification and security techniques are described in more detail in U.S. Provisional Application No. 60/175,159, entitled SYSTEM AND METHOD FOR ENABLING GLOBAL ACCESS AND INSTANTANEOUS LISTENING TO DIGITAL AUDIO, filed January 7, 2000, and U.S. Nonprovisional Application No. 09/615,591, entitled a SYSTEM AND METHOD FOR PROVIDING ACCESS TO ELECTRONIC WORKS, filed on July 13, 2000, both incorporated herein by reference.

The verification and security techniques may be used for content stored at the host location **120** and content stored at remote content locations **160**. If the content is stored remotely, the verification preferably occurs before the remote content is linked with the user account. In alternative embodiments, however, the verification or security techniques may occur sometime before the host instructs the remote content location **160** to provide the work to the user with access to the electronic work.

In a preferred embodiment, the verification server **126** is a dual Intel processor running a Linux operating system, Apache web server, and MySQL database. The verification server **126** also runs a Perl program as a common gateway interface ("CGI"). To perform its verification, the verification server **126** may read data from the content database **124** or content repository server **128**.

The content repository server **128** preferably stores content and verification data, such as encoded content, sample data, and index data. In a preferred embodiment, the content repository server **128** is a Sun Solaris E450 server with a Redundant Array of Inexpensive Disk ("RAID")

as storage and a Veritas file system. The content and verification data may be accessed by the user interface server **122** or the verification server **126**.

The statistics server **130** preferably collects data about the electronic works or host **120**, such as how many users have access to a work, how many works are available from each artist, how many works are available for each type or category of works, what works are the most popular, what are users' typical click streams, what works are linked through remote content locations **160**, how many times each work (i.e. works stored at the host **120** and works stored at remote content locations **160**) is accessed, or any other useful data. For example, the statistics server **130** may receive information from a user location **180**, such as what and how often works are streamed, downloaded, or played. The statistics server **130** may record this information so that the artists are compensated based on how often their works are accessed. The statistics server **130** could also collect a variety of other data, such as data related to billing or advertising.

In another embodiment, the statistics server **130** maintains a database with user information, such as how often users access the web site of the host location **120**, what types of works users access the most, what are users' typical click streams or any other useful information. This information may be used to make the system more user-friendly, target advertising or promotions, etc.

The content acquisition system **132** preferably acquires content for the host location **120**. The content acquisition system **132** may only include a single computer with a ripper and encoder. However, as the volume of works being added to the system increases, it may be necessary to implement a database-mediated, multi-machine parallel distributed-load architecture to rapidly extract content from different forms of media, such as tapes, CDs, DVDs, etc. The content acquisition system **132** is described in more detail in U.S. Provisional Application No.

60/175,159, entitled SYSTEM AND METHOD FOR ENABLING GLOBAL ACCESS AND INSTANTANEOUS LISTENING TO DIGITAL AUDIO, filed January 7, 2000, and U.S. Nonprovisional Application No. 09/615,591, entitled a SYSTEM AND METHOD FOR PROVIDING ACCESS TO ELECTRONIC WORKS, filed on July 13, 2000, both incorporated herein by reference.

The content locations **160** represent any location where electronic works are stored and accessible via the network **140**, including a personal content location, such as a home or work personal computer, or a second host or web site where the user also has an account. The user location **180** represents any potential user of the system. The content locations **160** and the user locations **180** typically include a user terminal, server, or a plurality of servers similar to the host **120**. In a preferred embodiment, the content locations are user terminals. A user terminal may include a personal computer or may include any of a variety of portable devices, such as a cell phone **166**, hand held unit **168** (e.g., a Palm Pilot ®), a car stereo **170**, a portable stereo **172** (e.g., a Walkman ®), etc., configured to interact over the network **140**. The content locations **160** are preferably connected to the network **140** via a high speed connection, such as a digital subscriber line ("DSL") or a cable modem.

A user terminal, such as personal computers **162** and **182**, preferably runs an Internet browser, such as Microsoft Internet Explorer® or Netscape Navigator®. A browser system is a program that provides a way to locate information on the Internet. A browser typically interprets hypertext links, or simple "links," and allows the user to view sites and navigate from one Internet node to another Internet node. A brief overview of web browsers and their interactions is set forth in U.S. Patent No. 5,774,670, the entirety of which is incorporated by reference.

Browsing also refers to the process of moving between HTML pages of a single typical web site. The HTML web page files, or web pages, may include a "homepage." A "homepage" is the main page of a web site that typically names and describes the site, and provides links to other web pages or various other features of the web site. Clicking refers to the process of indicating a desired link by using a cursor control device, such as a mouse or roller ball.

The user location **180** is any location with access to the network **140**. The user location **180** is typically a user terminal as described above. The user location **180** accesses the user's account with the host **120** from the user location **180** and requests access to a specific work in the account. In response to this request, the host **120** and/or content location **160** provides the requested work to the user location **180**. The user location **180** is preferably connected to the network **140** via a high speed connection, such as DSL or a cable modem.

A preferred embodiment of the present invention in operation is shown in Figures 2, 3 and 4. In this embodiment, a user has an online account with the host **120**. The on-line account preferably provides the user with access to electronic works stored at the host **120** and electronic works stored by at least one remote content location **160**. In an alternative embodiment, the account may only provide the user with access to electronic works stored at the host **120** or one or more remote content locations **160**.

Figure 2 illustrates a method **200** of the present invention. In a preferred embodiment, the user preferably loads a computer program onto a remote content location **160** in step **202**. The software may be downloaded over the network **140** from the host **120** or supplied on a portable medium, such as a CD-ROM. As will be further discussed below, this software may further support server functionality.

Once the software is loaded at the remote content location **160**, the program may ask the user to input some information, such as the username and password associated with the user's account with the host **120**, where at the remote content location **160** electronic works are stored, and possibly other information about the user's account or electronic works.

After this information is provided, the computer program may, in step **204**, search the remote location **160**, either automatically or at the user's direction, for the electronic works stored at the content location **160**. The program may search for the files identified by the user, may search for files identified by a predetermined file type, such as rich text format (RTF) or MP3 files, may search for specific file names, or may search for any other type of characteristic that identifies content. The program may also search the content location **160** for links to content stored at other network locations. Further, the program may search all of the memory at the remote content location **160**, may only search specific drives (e.g., a drive, c drive, etc.), may only search specific folders, etc.

In step **206**, upon detection of electronic works of the desired type, the program at the remote content location **160** preferably extracts certain information associated with the works, such as meta-data. Preferably, the musical electronic works stored at the remote content location **160** are stored with meta-data compliant with ID3 version 1 or 2, such as the title of the work, the name of the artist, the name of the album, the genre of the music, the track number of the song, etc. In an alternative embodiment, the meta data may also include the name of the movie, title of the picture, name of the book, artwork associated with the work, digital watermarks, or any other potentially useful information.

In yet another embodiment, the electronic work may not include well-structured meta-data, and the program may create meta-data from contextual information associated with the file,

such as the file name, the file location, the header, or from other meta-data associated with the file. In addition, the program may ask the user for additional information about the file to create more meta-data for a work.

Once the program locates and extracts all the necessary information, the program organizes this information into a data table in step **208**. As shown in Figure 3, the data table preferably includes an assigned identifier or work code for each work, certain meta-data about the work and an address or specific location of the work at the remote content location **160**. Note that the identifier may be a link to content stored at another network location or another host. For example, the program may search not only for electronic works physically stored at the remote content location **160**, but may also search for links, found at the content location **160**, to content stored anywhere on the network **140**. In one embodiment, the program searches folders for bookmarks or other links pointing to electronic works stored or accessible at other network locations, and stores these bookmarks or links as electronic work locations. Thus, the program may automatically, or at a direction of the user, search for links to other audio or video files.

The work code is preferably a unique identifier. The program may assign the work codes sequentially, incrementally, randomly, or in any other way. Figure 3 shows, by way of example, that the meta-data includes the artist, album, track, track number, genre and media type. Of course, other types of information are contemplated as well, including work format, compression ratio, work size, streaming data rate, etc. The table may include some or all of the meta-data associated with the work. This remote content location **160** may store this table on a hard drive, server, or any other type of memory, such as RAM, EEPROM, FLASH, etc.

In step **210**, some or all of the information gathered in step **206** is preferably transmitted to the host location **120**. The transmission may occur automatically after the search is complete

or the user may initiate the transmission by selecting an icon on a user interface. In a preferred embodiment, the transmission includes the user identification information, the assigned identifier for at least one electronic work, and the address of the remote content location **160**. Since some host locations **120** shut down a user's account if they detect more than one login at the same time, the transmission may also distinguish itself from a normal user login. Some ways to distinguish a login for a remote content location from a login for the user are a header, data file, or the method of receipt.

The address for the remote content location **160** is preferably an Internet protocol ("IP") address. In one embodiment, the address of a remote content location **160** may change periodically, such as when the remote content location **160** communicates with the network **140** via a cable modem. To accommodate for these changes, the remote content location **160** may periodically update its address information with the host **120**. The remote content location **160** may update such information at the user's command. The updates may also occur automatically, only when necessary, during each transmission to the host **120**, or when the host **120** contacts the remote content location **160**. The need for such updates depends on a stability of a user's address.

Upon receipt of this transmission, the host **120** may verify that the user or account holder is authorized to access the electronic works identified in the transmission. The host **120** may verify such authorization, such as via a confirmation number, a message received from a retailer, or in any other desired manner. Illustrative examples of such verification means are disclosed in U.S. Provisional Application No. 60/175,159, entitled SYSTEM AND METHOD FOR ENABLING GLOBAL ACCESS AND INSTANTANEOUS LISTENING TO DIGITAL AUDIO, filed January 7, 2000, and U.S. Nonprovisional Application No. 09/615,591, entitled a



SYSTEM AND METHOD FOR PROVIDING ACCESS TO ELECTRONIC WORKS, filed on July 13, 2000, both incorporated by reference above. In another embodiment, the host **120** may request information from the user or from the remote content location **160** that identifies where the user purchased the stored work and the host **120** may contact the retailer that sold the work or receive an authorization message directly from the retailer. The type of information required from the retailer is discussed in more detail in U.S. Provisional Application No. 60/175,159, entitled SYSTEM AND METHOD FOR ENABLING GLOBAL ACCESS AND INSTANTANEOUS LISTENING TO DIGITAL AUDIO, filed January 7, 2000, and U.S. Nonprovisional Application No. 09/615,591, entitled a SYSTEM AND METHOD FOR PROVIDING ACCESS TO ELECTRONIC WORKS, filed on July 13, 2000, both incorporated herein by reference above.

Figure **4** shows a method **400** of the present invention from a perspective of the host **120**. In step **402**, the host location **120** receives and stores the transmission discussed above from the content location **160**. The host **120** or user interface server **122** uses the user identification information to identify the user's account and for verification that the remote content location **160** should have access.

In step **404**, the host **120** links the information, such as the identifier or work codes, meta-data, and remote content location address, to the account. In one embodiment, the host **120** maintains one or more databases or other organizational structures related to user accounts. The database may be organized in a variety of ways. For example, the database may contain a table for all of the various sources of content, such as a table for remote content, a table for works authorized via a retailer, a table for publicly available works, a table of works available via a subscription, etc. Each table lists the account identifier for users with access to an electronic

work via that means and the identification of the authorized work. For example, the remote content location database may list the account identification for users with access to works stored at a remote location 160 and the identifier of that work or groups of works. These tables may also list various additional information.

In one embodiment, the tables may group the works by a variety of categories to reduce the number of entries. For example, the table may only list the name of a compact disc, and the identification of that compact disc may point to another table identifying the works on that compact disc to permit the user to access all the works on that compact disk. Also, the identification may not point to another table, but the identification of the compact disc itself may permit the user to access those works. In another embodiment, the table may only identify the content location 160, and the identification of that content location 160 may permit the user to access all or some of the content or works at that content location 160. When a user accesses his or her account, the host scans the various tables and creates a list of all the works available to that user.

In alternative embodiments, the database structures may vary considerably. For example, the database may contain tables for each account, tables for each recording company, tables for each subscription, or the tables may be organized in any hierarchical manner.

When a new work is added to a user's account, the linking of step 404 may occur by adding another entry to one of these tables. The entry would list the user's account identification, the identification of the new work, and any other potentially useful information. As discussed above, the identification of the work may include an address of the content location 160 storing the work and/or other information.

The host **120** may also link an account to multiple remote content locations **160**. For example, a user may want to link his or her account to the works stored on a personal computer at home and the works stored on a personal computer at the office. In an alternative embodiment, each account is only linked to one remote content location **160**. Similarly, a remote content location **160** may be linked to multiple user accounts at a single host or multiple hosts **120**. In a preferred embodiment, however, each remote content location **160** is linked to only one account.

Once electronic works stored at the content location **160** are linked to the account, the links are preferably integrated with similar links to content made accessible to the account through other means in step **406**. For example, an account may have access to a work because a user owns a physical copy of the work or an account may have access to works because they were purchased from an authorized retailer, as in U.S. Provisional Application No. 60/175,159, entitled SYSTEM AND METHOD FOR ENABLING GLOBAL ACCESS AND INSTANTANEOUS LISTENING TO DIGITAL AUDIO, filed January 7, 2000, and U.S. Nonprovisional Application No. 09/615,591, entitled a SYSTEM AND METHOD FOR PROVIDING ACCESS TO ELECTRONIC WORKS, filed on July 13, 2000, both incorporated herein by reference above. Also, an account may have access to works because of a subscription, as shown in U.S. Nonprovisional Application No. 09/722,407, entitled A SUBSCRIPTION RIGHTS AND ACCOUNTING SYSTEM, and filed on November 28, 2000, herein incorporated by reference.

When links to content at the remote content location **160** are integrated with links to content accessible through other means, the user may consolidate all such content or electronic works into one account and access all of this content through one user interface. Each of the

works is identifiable by a unique Uniform Resource Locator ("URL"). Each URL may be determined differently depending on how the corresponding work was authorized and/or the source thereof.

With the electronic works from various locations linked, the user may create a playlist including works from any of the integrated sources. For example, the host **120** allows the user to create a playlist with works stored at a remote content location **160** and works stored at the host **120**, or to create a playlist with works stored at a remote content location **160**, works authorized because of a physical copy of the work, works authorized because of a subscription, and works authorized because they were purchased through an authorized retailer.

The host **120** may also group or categorize the works from the various sources in the user account via artist, genre, actor, source, or any other desired categories. Thus, if the user wants to access all works by a certain author or artist from all available sources, the user interface server **122** may identify all of the works by that actor or author.

Once the works stored at multiple content locations **160** are integrated by the host **120**, the user may access all of these works through his or her account. To access these works, the user may logon to the account with the user's identification information, such as a username and password. After the user logs on, the host **120** provides a user interface through which the user may view, group and/or access all of the user's works. The user may access the account from anywhere the user has access to the network **140**. The user may request to access the works individually or through a playlist. If the user requests a work stored at a content location **160** other than the host **120**, the host **120** creates or retrieves the URL for that work. As discussed above the URL indicates the identifier of the requested work and the address of the content location **160** that stores the work.

After the content location **160** having the requested work is linked to the account, that content location **160** listens on a network port for a message or request for a stored work. The request may be received from the host **120** or directly from a user location **180**. Preferably, the content location **160** listens for requests using the HTTP protocol. However, other network protocols may be used as well. The content location **160** may listen continually or it may listen only when the user instructs it to listen.

When the user at a user location **180** selects a work stored at a remote content location **160**, the host **120** generates a work code or other identifier for the requested work. The work code may be derived from the network address of the content location **160** storing the work and/or the location of the requested work at the content location **160**.

In a preferred embodiment, the host **120** sends a message, which may include an address of the remote content location **160**, a work code or other identifier of the requested work and/or a URL, back to the user location **180**. The user location **180** may then use this identifier as well as any other information in the message to contact the content location **160** directly. In one embodiment, the URL is created based on the address of the remote content location **160** and the identifier of the work, such that the URL itself includes all of this information. The content location **160** uses the identifier to look up, such as in a look-up table of the type shown in Figure 3, where at the content location **160** the requested work is stored. Once the content location **160** identifies where the requested work is stored, the content location **160** accesses the work and delivers the work to the user location **180**. In a preferred embodiment, the content location **160** delivers the work by acting as a server, which is supported by the program loaded at the content location **160**.

In an alternative embodiment, the host **120** sends a message or request with this identifier to the remote content location **160**. In this embodiment, the message typically forwards the work code and the network address of the user location **180** so that the content location **160** knows where to send the work.

The work may be delivered by downloading or uploading the work to the user location **180**, streaming the work to the user location **180**, or any other means of electronic delivery. The requested work may be delivered by any method directly from the content location **160** to the user location **180** or indirectly through the host **120** to the user location **180**.

The host **120** may also collect a variety of information from the delivery of this content. For example, the host **120** may collect users' preferences, such as what genres of works they access the most, or what artists of works they access the most. Based on these user preferences, the host **120** may send targeted advertisements or promotions. The host **120** may also collect information regarding what works are accessed to calculate and distribute royalties, or to charge users. Any royalty payments or charges may, for example, be tracked, calculated, and made based on a system of the type shown in U.S. Nonprovisional Application No. 09/722,407, entitled A SUBSCRIPTION AND ACCOUNTING SYSTEM, incorporated by reference above.

### ***Conclusion***

While various embodiments of the present invention have been described above, it should be understood that they have been presented by way of example only, and not limitation. For example, the present invention is not limited to the physical arrangements or use with any particular network. As such, the breadth and scope of the present invention should not be limited

to any of the above-described exemplary embodiments, but should be defined only in accordance with the following claims and their equivalents.

FIG. 10 is a perspective view of the device of FIG. 9, showing the device in a folded state.